

CA1
MT 76
- A66



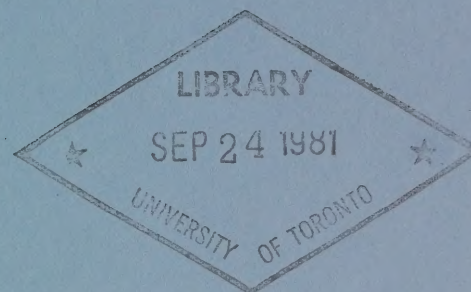
CANADA

²
NATIONAL ENERGY BOARD
¹³
REASONS FOR DECISION



In the Matter of an Application pursuant
to Subcondition 2(2) of Certificate of Public
Convenience and Necessity No. GC - 65

by



TransCanada PipeLines Limited

July 1981

NATIONAL ENERGY BOARD

REASONS FOR DECISION


In the Matter of an Application pursuant
to Subcondition 2(2) of Certificate of Public
Convenience and Necessity No. GC-65

by

TransCanada Pipelines Limited

July 1981

Ce rapport est publié
séparément dans les deux
langues officielles.



Digitized by the Internet Archive
in 2023 with funding from
University of Toronto

<https://archive.org/details/31761116377052>

NATIONAL ENERGY BOARD

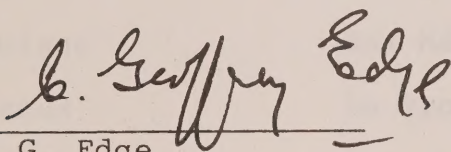
In the Matter of the Application under
the National Energy Board Act

of

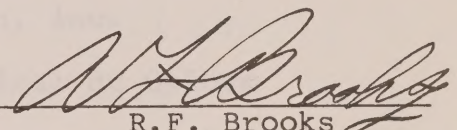
TRANSCANADA PIPELINES LIMITED

JULY 1981

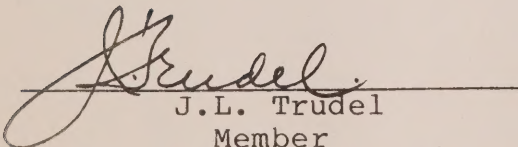
The Board having received and considered the evidence adduced, the submissions made and the report of the Presiding Member, Mr. Jacques Farmer, made pursuant to Section 14 of the National Energy Board Act, and on the basis of that evidence, submissions and report having satisfied itself with regard to all considerations that appear to it to be relevant hereby adopts that report as the statement of its findings and its decision on the application.



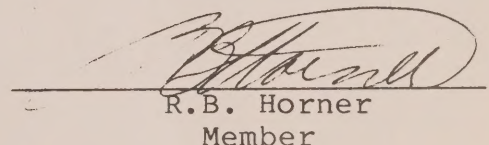
C.G. Edge
Chairman



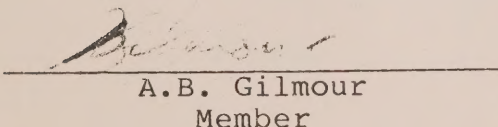
R.F. Brooks
Vice-Chairman



J.L. Trudel
Member



R.B. Horner
Member



A.B. Gilmour
Member

NATIONAL ENERGY BOARD

IN THE MATTER OF the National Energy Board Act and the Regulations made thereunder;

AND IN THE MATTER OF an application made by TransCanada PipeLines Limited pursuant to Subcondition 2(2) of Certificate of Public Convenience and Necessity No. GC-65, for approval of a deviation of the portion of the mainline and lateral facilities between Boisbriand Junction and Trois-Rivières in the Province of Quebec, filed with the Board under File No.: 1555-T1-83.

HEARD AT Trois-Rivières, Quebec on 22 and 23 June 1981.

BEFORE: J. Farmer as Presiding Member duly appointed by the Board for that purpose in accordance with section 14 of the National Energy Board Act.

APPEARANCES:

Louis Rail)	TransCanada PipeLines Limited
Terry Dalglish)	
Yvon Brisson		Gaz Inter-Cité Québec Inc.
Paul Leblanc		Gaz Métropolitain, inc.
Jean Giroux		Le Procureur Général du Québec
Jean-Paul Carpentier		L'Union des Producteurs Agricoles
Richard Makuch)	National Energy Board
Sandra Fraser)	

TABLE OF CONTENTS

	<u>Page</u>
Recital and Appearances	(i)
Table of Contents	(ii)
Abbreviations of Names	(iii)
1.0 The Application & Background	1
2.0 Evidence & Views of the Presiding Member	3
2.1 Routing	3
2.2 Engineering	5
2.3 Environment	11
2.4 Right-of-Way	12
3.0 Recommended Disposition	15
 APPENDICES	
1. MAPS (2)	
2. DEFINITION - CLASS LOCATIONS	

ABBREVIATIONS OF NAMES

"CPTA"	- Commission de Protection du Territoire Agricole
"the Board"	- National Energy Board
"Québec"	- Procureur Général du Québec
"TransCanada" "TCPL" or "the Applicant"	- TransCanada PipeLines Limited
"TQM"	- Trans Québec & Maritimes Pipeline Inc.
"UPA"	- Union des Producteurs Agricoles du Québec

CHAPTER 1

THE APPLICATION & BACKGROUND

On 15 May 1980, the National Energy Board issued Certificate of Public Convenience and Necessity No. GC-65 to TransCanada PipeLines Limited authorizing pipeline facilities from Boisbriand Junction to Lévis/Lauzon in the Province of Quebec. Condition 2 of Certificate of Public Convenience and Necessity No. GC-65 provided as follows:

"2. (1) TransCanada shall cause the additional pipeline in respect of which this certificate is issued, to be ... located ... in accordance with those specifications, drawings and other information or data set forth in the application as amended, or as approved by the Board, unless varied in accordance with subcondition (2) hereof, and those that are otherwise filed with the Board.

(2) TransCanada shall cause no variation in the specifications, drawings, other design data and requirements described in sub-condition (1) hereof to be made without prior approval of the Board."

In its Reasons for Decision, the Board recognized the importance of local concerns with respect to the route of the pipeline facilities authorized and directed TransCanada to undertake further studies and discussions to accommodate those concerns.

As a result of the concerns expressed by the Board and by groups within the Province of Quebec, TransCanada began in April 1980 to conduct intensive discussions with various Quebec bodies interested in agriculture, environment and land use along the pipeline route to Trois-Rivières. Those involved in the discussions included TransCanada, L'Union des Producteurs Agricoles du Québec and the Inter-ministerial Committee of the Province of Quebec. The Inter-ministerial Committee was composed of the following ministries:

Energy; Transport; Municipal Affairs; Agriculture; Environment; Industry and Commerce; Leisure, Hunting and Fishing; and Land Use.

The prime considerations that arose from those discussions with respect to the location of the pipeline facilities were, firstly, the desire to minimize the impact on prime agricultural lands in the Province of Quebec, and, secondly, the possibility of using existing utility corridors for the building of the pipeline facilities.

Following those consultations, TransCanada on 2 April 1981, made an application to the Board, pursuant to subcondition 2(2) of Certificate of Public Convenience and Necessity No. GC-65, for approval of a deviation of a portion of the mainline and lateral facilities between Boisbriand and Trois-Rivières, in the Province of Quebec. By Order No. MH-2-81, the Board set down TransCanada's application for public hearing at Trois-Rivières, Quebec, on 22 June 1981.

During the course of the hearing, TransCanada stated that, in the current application, it was not seeking approval for changes to the proposed laterals. The application before the Board was for the deviation of the mainline route only, and the Applicant indicated that approval would be sought shortly for changes in the location of the laterals.

With respect to the location of the mainline between Yamachiche and Trois-Rivières, TransCanada requested approval of both a north and a south route, pending a future decision on the route of the mainline from Trois-Rivières to Quebec City.

CHAPTER 2

EVIDENCE & VIEWS OF THE PRESIDING MEMBER

2.1 Routing

The mainline route authorized by the Board pursuant to Certificate of Public Convenience and Necessity No. GC-65 between Boisbriand Junction and Trois-Rivières commenced at a point identified as C and proceeded north east to points identified as E, F, G and H, as shown on Figure 1.

The proposed mainline route modification between Boisbriand Junction and Trois-Rivières, as shown on Figure 1, would commence at a point identified as C', proceed north to C* and then proceed east to points identified as E', F' and G, in the vicinity of Yamachiche, Quebec. From Yamachiche, two alternatives were studied, namely, a northern alternative designated H(N) and a southern alternative designated H(S). Both the northern and the southern alternatives were submitted for approval. TransCanada agreed that the route between Yamachiche and Trois-Rivières would be dependent upon the route of the pipeline between Trois-Rivières and Quebec City, and the Applicant indicated that it expected to file shortly with the Board a formal application for approval of a deviation of the route to the north shore of the St. Lawrence River between Trois-Rivières and Quebec City. The evidence shows that TransCanada would prefer to receive approval for the deviation from Boisbriand to Trois-Rivières in order to serve the market in Trois-Rivières but that there would not be any major problems if the Board were to approve, at this time, only the portion of the line between Boisbriand and Yamachiche.

In determining the original route of the pipeline facilities between Boisbriand and Trois-Rivières, TransCanada attempted, as much as possible, to utilize agricultural land. Agricultural land is normally a favourable location in which to install a gas pipeline because construction can be carried out with fewer difficulties and at a lower cost. In addition, although the cultivated land is disturbed during construction activity, it is possible to restore it to normal or near normal productivity once the pipeline is operational.

However, the use of agricultural land for anything but agricultural purposes has been a matter of increasing concern in the Province of Quebec during the past decade. This concern stems, in part, from the fact that it has been estimated that less than 2% of the land area of Quebec can be used for agriculture, with the St. Lawrence basin containing the majority of agricultural lands. To deal with this problem of deterioration of agricultural land, the Province of Quebec, in 1978, enacted Bill 90 "An Act to Preserve Agricultural Land".

As a result of the concerns expressed by the Board in its April 1980 Reasons for Decision and by groups within the Province of Quebec, TransCanada found it necessary to consider new criteria for pipeline routing. The revised route corridor between Boisbriand and Trois-Rivières was established in an attempt to: (1) lessen the adverse impact on agricultural lands and (2) use existing utility corridors for the building of the pipeline facilities.

This objective was met by the reduction of lot crossings, paralleling of road and utility corridors, and the traversing of farm properties near their lot lines. In attempting to avoid agricultural lands, it was necessary to locate the revised route in an increased number of timber, swamp and urban areas. This would result in construction costs higher than those associated with pipeline construction in open farmland.

The evidence indicates that TransCanada considered several alternative routes, and that the proposed route does not include any alternative which was considered unacceptable or undesirable by those interested parties with whom TransCanada had discussions. In particular, I note that the proposed route modification was not challenged by any intervenor during the course of the hearing, and I find the proposed route modification, in general, to be acceptable.

2.2 Engineering

Evidence

During the hearing, Board Counsel questioned TransCanada on the impact of the route deviation on the design, construction, operation, maintenance and cost of the pipeline facilities.

The fact that the new route would be located near an increased number of existing or potential urban centres and close to highways and utilities, raised a number of questions on the proposed class locations (as defined in Appendix 2), and on the design of the pipeline.

TransCanada stated that it had contacted all affected municipalities to review their municipal by-laws and planning. In establishing the various class locations TransCanada incorporated

presently built up areas as well as the municipalities' existing and future development plans within a timeframe of between five and fifteen years.

The Applicant justified the use of the proposed design factors¹ and provided its reasons for classifying certain areas as particular class locations. With respect to the safety factor used in the design of the pipeline to be located in a rural area of Class 1 location but where future development could conceivably change the area to a Class 2 location, TransCanada proposed a design factor of 0.6. TransCanada stated that it more than fully complied with the CSA Z-184 code by using a 0.6 design factor instead of 0.72. However for other areas of low population, it proposed a design factor of 0.72 instead of the 0.80 factor permitted by the CSA Z-184 code. According to TransCanada, this 0.72 factor would enable it, if the population density were to increase, to reclassify to a Class 2 location, without taking the pipeline out of service to install costly replacements or to retest the pipeline portion involved.

TransCanada explained that it proposed to install heavier wall pipe in some existing rural areas because of the possibility of future development, the existence of lateral connections, river or road crossings and fabricated assemblies, and in order to facilitate hydrostatic testing. The new route would require, for safety considerations, relatively longer sections of heavier wall pipe.

1 Design Factor: A factor applied to the specified minimum yield strength of the pipe for the purpose of calculating the design pressure, as detailed in section 6.4 of the CSA Standard Z184-M1979 Gas Pipeline Systems.

TransCanada pointed out that the pipeline along the modified route could be built safely, and that it would meet the requirements of the CSA Z-184 Code and the Board's Gas Pipeline Regulations.

TransCanada proposed to install automatic sectionalizing valves which would automatically stop the gas flow when they sensed sudden pressure drops. These valves would be installed at short intervals and would be located in accessible areas to cope with all emergencies.

TransCanada testified that the facilities along the proposed route could be built utilizing conventional pipeline construction methods. In difficult construction areas, such as wet lands or restricted areas, special construction techniques would be followed.

TransCanada submitted a construction schedule which indicated that construction would start during the winter of 1981, with the pipeline being in service at the beginning of November, 1982.

The Applicant stated that access to the right-of-way for construction and operation purposes would generally be gained at pipeline crossings of secondary roads and established trails or local access roads. Where the existing secondary road and access road infrastructure was not readily available, additional access would be acquired from landowners.

The estimated total cost for the mainline and laterals would amount to \$65,212,000 (1981 dollars) following the proposed revised route, in comparison with \$54,649,000 (1981 dollars) estimated for the certificated route. For the purpose of this

comparison TransCanada used as a starting point for the deviation a point shown on Figure 1 as C* and a terminus designated as H(S). If the northern route between Yamachiche and Trois-Rivières terminating at a point designated H(N) were considered, the cost of the deviation for the mainline and laterals would be reduced from \$65,212,000 to \$62,340,000. If one were to exclude the cost of constructing laterals and consider only the mainline between Boisbriand and Trois-Rivières, the cost would be \$61,203,000 using point H(S) and \$58,331,000 using point H(N), compared to an estimate of \$49,995,000 for the original mainline.

TransCanada indicated that the following additional costs should be added to all cost estimates:

<u>Item</u>	<u>Cost (\$000)</u>
Compensation package to landowners	\$2,500
Treated steel for automatic welding	2,000
Additional land or working space, legal survey, etc.	1,700
Automatic welding	<u>1,800</u>
TOTAL	\$8,000

Furthermore, there would be two other major items, in addition to routine escalation, which might increase the costs of the project, namely, the new decree rates for pipeline construction in the Province of Quebec and the current market situation for contractors in Canada. TransCanada estimated that the escalation due to the new decree rates alone could increase the cost by a further \$8.0 million.

Views of the Presiding Member

In light of the statements made by TransCanada, it is clear that the change in location of the facilities between Boisbriand and Trois-Rivières would substantially increase the cost of the mainline facilities. However, there are a number of factors which should be balanced against this increased cost to determine whether the pipeline facilities should be relocated.

The damage which might result from the construction and operation of a pipeline in areas of prime agricultural lands is one such important factor. It would be very difficult, if not impossible, to quantify with any degree of certainty the cost which could result from damage to agricultural land although I note that pipelines have been constructed and operated for quite a number of years in agricultural areas with minimal interference with farming operations.

Nevertheless, it is my view that, under the present circumstances, it would be in the public interest to relocate the line in order to protect the narrow strip of valuable agricultural land in this particular area, although the cost of constructing along the revised route may be higher than the cost associated with the originally certificated route.

The relocation of the pipeline to areas of higher population density and closer to public transportation corridors raises a number of other concerns. It is possible that the location of a pipeline near a highway or near an urban area could impede

the commercial or urban development of a municipality. In addition, the location of a high pressure pipeline near an urban centre raises additional questions of public safety.

The evidence shows that the parties most directly affected have carefully considered all of these matters in their discussions with TransCanada and that the proposed route takes account of these matters.

I am convinced that TransCanada has performed a thorough study of the possibilities of population development near the pipeline and has incorporated the results of these studies in the design of the pipeline facilities.

I am satisfied with the evidence of TransCanada on the design, construction and operation of the pipeline within the modified route, and note that the safety measures proposed would meet or exceed the requirements of the CSA Standard Z-184 and the Board's Gas Pipeline Regulations.

I am pleased that TransCanada proposes to utilize, where possible, existing road infrastructure as a means of access to the right-of-way. However, I recognize that new access roads would be required in certain areas which would involve further negotiations with landowners.

After having considered all these factors, I am satisfied that, under the present circumstances, the benefits to be derived from the relocation of the pipeline facilities, in this particular area, would outweigh the detrimental factors involved, including the additional costs which would be incurred as a result of the relocation.

2.3 Environment

As stated earlier in this report, TransCanada requested a route deviation in order to minimize the impact of construction of the pipeline in areas of high quality agricultural soils.

The evidence indicated that some of the agricultural land which would be traversed by the proposed route contains subsurface drainage systems. TransCanada stated that its policy is to repair or replace all damaged drainage systems and to maintain drainage patterns.

With respect to wet soil areas, TransCanada indicated that it would consider scheduling winter construction so as to minimize adverse impacts in those areas.

TransCanada indicated that it would secure a 22.86 m wide right-of-way for the whole length of the proposed route. The Applicant also testified that it would reduce the width of the cleared right-of-way to 19.8 m in those areas where the pipeline would traverse good quality woodlots.

TransCanada stated that a forestry engineer would be available to discuss the conservation of good quality woodlots with the landowners and other parties concerned.

With respect to ground water, the dewatering of ditches and the protection of private domestic water supplies would be treated as site specific problems and would be dealt with at the time of construction. Where dewatering was necessary, TransCanada stated that construction would proceed as rapidly as possible to prevent the loss of domestic water supplies from nearby private wells.

It is quite clear from the evidence that there is a need to preserve agricultural soils in Quebec, and I accept the weighting given to this concern even though other environmental costs may accrue as a consequence.

I feel that TransCanada has demonstrated its concern and determination to mitigate any adverse environmental effects which might arise from the proposed route. I accept the measures proposed to maintain existing subsurface drainage systems, as well as the proposal to schedule winter construction, if necessary, to protect wet soil areas.

I also accept TransCanada's statement that it would cooperate with landowners, and ensure that where the pipeline traverses good quality woodlands, it would attempt, where possible, to clear only 19.8 m of the 22.86 m wide right-of-way for working space.

I am also satisfied with TransCanada's evidence that it would provide proper adequate draw-down techniques and disposal of surplus water where ditch dewatering was required.

I find, therefore, that environmental concerns have been considered in the proposed route modification and that TransCanada is both capable of dealing effectively with them and prepared to do so.

2.4 Right-of-Way

TransCanada stated that it had contacted all twenty-six municipalities affected by the proposed route modification. Objections to specific sections of the modified route centred on problems arising from conflicts with future municipal road and infrastructure plans. In all cases, solutions have been negotiated.

The Applicant further stated that the proposed pipeline would reflect the present zoning of the municipality whether the areas under consideration were undeveloped or under development.

With respect to notification of landowners, TransCanada met with each landowner affected by the proposed modified route. At that initial contact, TransCanada's land agents distributed an information booklet identified as "Landowner's Guide", the purpose of which was to inform the landowner of the project. This "Landowner's Guide" was prepared by TQM and the policies stated therein were adopted by the Applicant.

TransCanada testified that it was in the process of reviewing and revising the "Landowner's Guide" and it had taken note of the Board's comments with regard to expropriation. TransCanada undertook to file with the Board a draft revision of the "Landowner's Guide" prior to further distribution.

TransCanada testified that it was currently negotiating options for servitude along the mainline route between Boisbriand and Trois-Rivières. With regard to the portion of the route between Yamachiche and Trois-Rivières, options are being obtained for the northern alternative only. The evidence shows no special problem areas with respect to obtaining the necessary easements. Condition 5(ii) of Certificate of Public Convenience and Necessity No. GC-65 requires TransCanada to file with the Board, concurrent with the filing of plans, profiles and books of reference, a listing of all properties where it is anticipated that expropriation procedures will be required.

TransCanada testified that the change in route location would require a substantial increase in the amount of temporary working space for the construction period. The increase in working areas would be required due to the wetness of the proposed route as well as geotechnical considerations which dictate that normal ditching techniques could not be utilized in some areas.

I am satisfied that extensive contact has been made with the affected municipalities to resolve their concerns and identify future urban development. TransCanada is to be commended for the manner in which it is conducting discussions with landowners affected by the proposed route and I accept TransCanada's undertaking to file a draft revision of the "Landowner's Guide" prior to further distribution to affected owners.

While I am concerned with the increase in temporary working area which would be required for the construction of the pipeline along the modified route, I recognize that the additional right-of-way requirements would be of a temporary nature and would be restricted to the construction phase only.

CHAPTER 3

RECOMMENDED DISPOSITION

As Presiding Member, authorized under Section 14 of the Act to take evidence and acquire the necessary information for the purpose of making a report to the Board on TransCanada's application, I have given careful consideration to all the evidence and submissions presented to me in respect of this application. My analysis of them leads me to this Recommended Disposition.

In the previous chapter of this report, I have set out a summary of the evidence, submissions and arguments of parties present at the hearing, and have expressed my own views and conclusions on a variety of issues which were raised at the public hearing on TransCanada's application.

The new route proposed by TransCanada was chosen after lengthy and detailed discussions with those parties most directly affected by the pipeline facilities between Boisbriand and Trois-Rivières. I am pleased to note the spirit of cooperation in which those consultations were carried out, and the result is a route which appears to be acceptable to TransCanada and to local interests, supported by all parties including Québec and the UPA in their direct testimony. After careful examination of the evidence, I find the proposed route between Boisbriand and Yamachiche to be acceptable.

As outlined in Chapter 2, the proposed location of the facilities between Yamachiche and Trois-Rivières is dependent upon the location of the pipeline facilities between Trois-Rivières and Quebec City. The Board does not have before it an application with respect to the deviation of the route between Trois-Rivières and

Quebec City, and, therefore, it is my view that it would be premature to make a decision at this time on the proposed route between Yamachiche and Trois-Rivières.

I have given careful consideration to the evidence before me on environmental and right-of-way matters and I am satisfied that construction of the pipeline facilities within the proposed route can be accomplished with minimal adverse effect provided that TCPL implements the environmental protection practices and procedures presented in evidence.

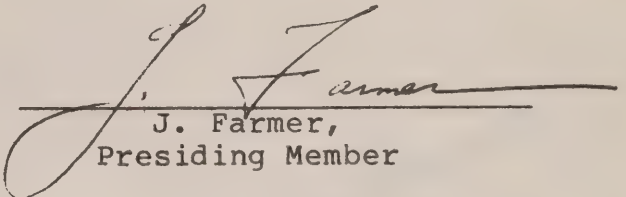
I am also satisfied with the evidence presented with respect to the impact of the route deviation on design, construction, operation and maintenance of the pipeline facilities.

The record shows that there will be higher capital costs associated with the proposed route as compared to the certificated route. I find that the revised cost estimates are representative of the type of construction to be done and I am satisfied that the additional expenditure for the route deviation can be justified in the circumstances.

In summary, I find that it would be in the public interest to approve TransCanada's application for a deviation of the route of the mainline facilities between Boisbriand and Yamachiche, as set out in Figure 2. I, therefore, recommend that the Board approve TransCanada's application with respect to this portion of the facilities.

In view of my comments above, I am not prepared to recommend that the Board approve TransCanada's application with respect to the portion of the facilities between Yamachiche and Trois-Rivières.

I submit this report to the National Energy Board in accordance with Section 14 of the Act. I respectfully recommend that it be adopted as the Board's own findings and decision on the application, as allowed under the said section.



J. Farmer,
Presiding Member

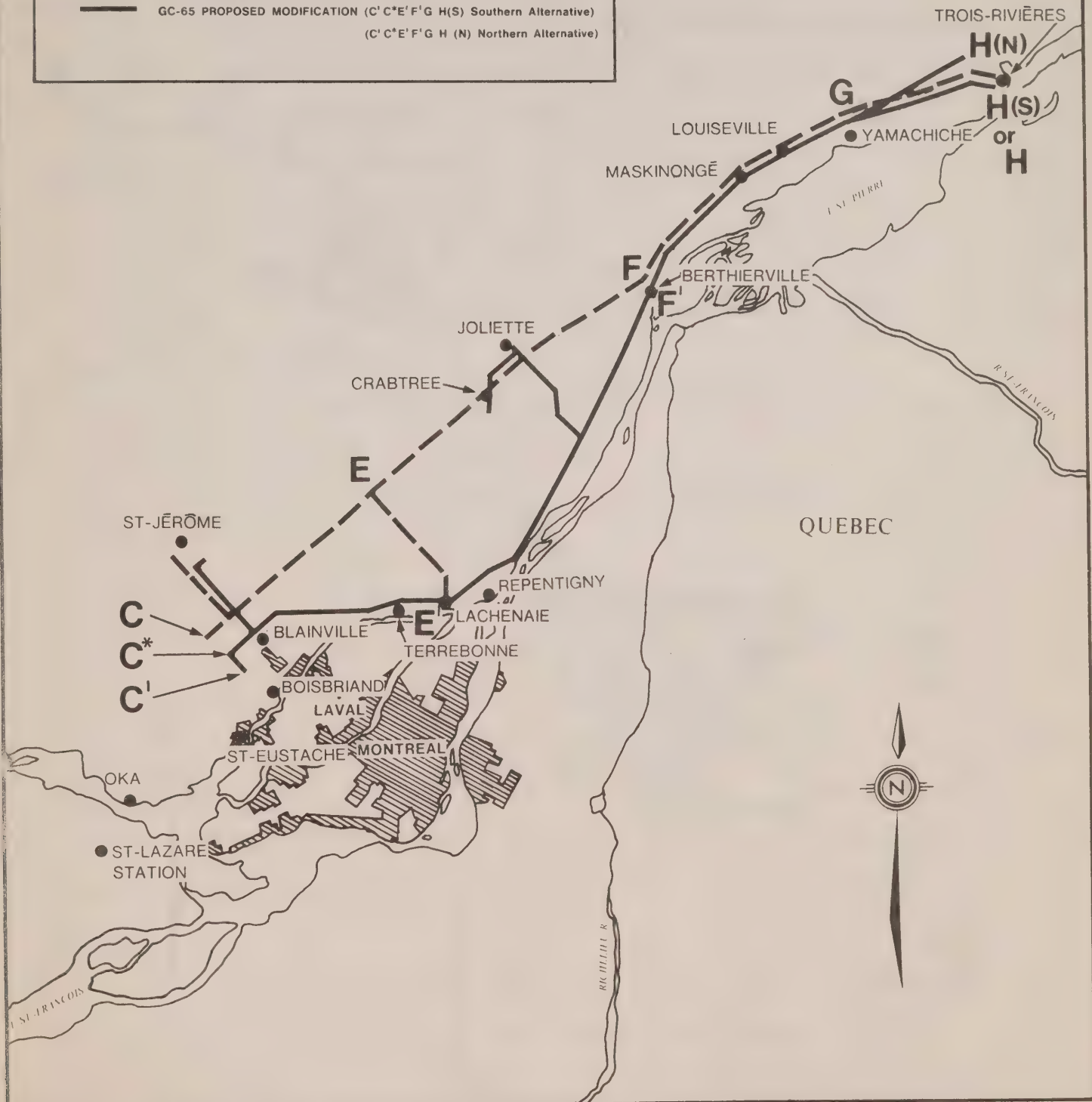
Ottawa, Canada

July 1981

TRANSCANADA PIPELINES ROUTE MAP BOISBRIAND to TROIS-RIVIÈRES

LEGEND

- GC-65 CERTIFICATED ROUTE (C E F G H)
- GC-65 PROPOSED MODIFICATION (C' C*E' F' G H(S) Southern Alternative)
(C' C*E' F' G H (N) Northern Alternative)



TRANSCANADA PIPELINES ROUTE MAP BOISBRIAND to YAMACHICHE



Class Locations

The class location unit is a unit of area of a width extending 200 m on each side of the centre line of a pipeline and of a length of 1.6 km along the line.

Class 1

A Class 1 Location is:

- (a) Any area in the class location that has ten or fewer dwelling units intended for human occupancy.
- (b) Any offshore pipeline.

Class 2

A Class 2 Location is:

- (a) Any area in the class location unit that has more than 10 but fewer than 46 dwelling units intended for human occupancy.
- (b) An area where the pipeline centre line lies within 90 m of any of the following:
 - (i) A building that is occupied by 20 or more persons during normal use;
 - (ii) A small, well-defined outside area that is occupied by 20 or more persons during normal use, such as a playground, recreation area, outdoor theatre, or other places of public assembly.

Class 3

A Class 3 Location is any area in the class location unit that has 46 or more dwelling units intended for human occupancy.

Class 4

A Class 4 Location is any area in the class location unit where buildings with four or more storeys above ground are prevalent.

